

L22 ANSWER 1 OF 12 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
DUPLICATE 1  
AN 1999:297320 BIOSIS  
DN PREV199900297320  
TI The antiangiogenic agents TNP-470 and 2-methoxyestradiol inhibit the  
growth of **angiosarcoma** in mice.  
AU Arbiser, Jack L. [Reprint author]; Panigrathy, Dipak; Klauber, Nancy;  
Rupnick, Maria; Flynn, Evelyn; Udagawa, Taturu; D'Amato, Robert J.  
CS Department of Dermatology, Emory University School of Medicine, WMB 5309,  
Atlanta, GA, 30322, USA  
SO Journal of the American Academy of Dermatology, (June, 1999)  
Vol. 40, No. 6 PART 1, pp. 925-929. print.  
ISSN: 0190-9622.  
DT Article  
LA English  
ED Entered STN: 5 Aug 1999  
Last Updated on STN: 5 Aug 1999  
AB Background: Endothelial malignancies, such as ~~angiosarcoma~~ and  
~~hemangioendothelioma~~, are often resistant to chemotherapy and surgery, and  
may result in death. Improved means of therapy are needed for these  
disorders. Objective: We wanted to determine whether **angiosarcoma**  
can be treated with **angiogenesis** inhibitors in mice. Methods:  
Mice were inoculated with a cell line that gives rise to  
**angiosarcoma** and were treated with the **angiogenesis**  
inhibitors 2-methoxyestradiol and TNP-470. Response to therapy was  
monitored by measurement of tumors. Results: TNP-470 caused an 84%  
reduction in tumor size, and 2-methoxyestradiol caused a 68% reduction in  
tumor size. Conclusion: **Angiogenesis** inhibitors are highly /  
effective in treatment of **angiosarcoma** in mice. / Clinical trials  
of these agents in humans with **angiosarcoma** and  
hemangioendothelioma are warranted.

(FILE 'HOME' ENTERED AT 07:30:40 ON 31 OCT 2003) ✓

FILE 'ADISCTI, ADISINSIGHT, ADISNEWS, BIOSIS, BIOTECHNO, CANCERLIT, CAPLUS, CEN, DISSABS, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, EMBAL, EMBASE, ESBIODBASE, IFIPAT, IPA, JICST-EPLUS, KOSMET, LIFESCI, MEDICONF, MEDLINE, NAPRALERT, NLDB, NUTRACEUT, ..' ENTERED AT 07:30:52 ON 31 OCT 2003

L1 86627 S (BASIC AND FIBROBLAST AND GROWTH AND FACTOR)  
L2 10 S L1 AND DEMETHOXYCURCUMIN  
L3 6 DUP REM L2 (4 DUPLICATES REMOVED)  
L4 2 S L3 AND PD<2000  
L5 1358 S VENOUS (W) ULCER  
L6 484 S L5 AND PD<2000  
L7 10 S L6 AND ANGIOGENESIS  
L8 10 DUP REM L7 (0 DUPLICATES REMOVED)  
L9 0 S L8 AND (CURCUMIN OR CURCUMINOID OR DEMETHOXYCURCUMIN)  
L10 1 S L7 AND L1  
L11 1 S (BASIC (W) FIBROBLAST (W) GROWTH (W) FACTOR) AND L8  
L12 51 S L5 (P) ANGIOGENESIS  
L13 46 DUP REM L12 (5 DUPLICATES REMOVED)  
L14 2 S L13 AND PD<2000  
L15 229 S ANGIOSARCOMA (P) ANGIOGENESIS  
L16 59 S L15 AND PD<2000  
L17 2 S (BASIC (W) FIBROBLAST (W) GROWTH (W) FACTOR) AND L16  
L18 57 S L16 NOT L17  
L19 0 S L18 AND (CURCUMINOID OR DEMETHOXYCURCUMIN OR CURCUMIN)  
L20 38 S L18 AND (ANGIOGENESIS OR ANGIOSARCOMA)/TI  
L21 19 S L20 AND (ANGIOGENESIS OR ANGIOSARCOMA)/AB  
L22 12 DUP REM L21 (7 DUPLICATES REMOVED)  
L23 12 S ANGIOSARCOMA AND (CURCUMINOID OR DEMETHOXYCURCUMIN OR CURCUMI  
L24 8 DUP REM L23 (4 DUPLICATES REMOVED)  
L25 0 S L24 AND PD<2000

=>

L4 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
 AN 1998:232405 BIOSIS  
 DN PREV199800232405  
 TI Inhibition of angiogenic differentiation of human umbilical vein  
 endothelial cells by **curcumin**.  
 AU Thaloor, Deepa; Singh, Anoop K.; Sidhu, Gurmeh S.; Prasad, Paruchuri V.;  
 Kleinman, Hynda K.; Maheshwari, Radha K. [Reprint author]  
 CS Cent. Combat Casualty Life Sustainment Res., Dep. Pathol., Uniformed Serv.  
 Univ. Health Sci., Bethesda, MD 20814, USA  
 SO Cell Growth and Differentiation, (April, 1998) Vol. 9, No. 4,  
 pp. 305-312. print.  
 ISSN: 1044-9523.  
 DT Article  
 LA English  
 ED Entered STN: 20 May 1998  
 Last Updated on STN: 20 May 1998  
 TI Inhibition of angiogenic differentiation of human umbilical vein  
 endothelial cells by **curcumin**.  
 SO Cell Growth and Differentiation, (April, 1998) Vol. 9, No. 4,  
 pp. 305-312. print.  
 ISSN: 1044-9523.  
 AB Angiogenesis is a crucial step in the growth and metastasis of cancers.  
**Curcumin** inhibits tumor initiation and growth. We analyzed the  
 effect of **curcumin** on endothelial cell migration, attachment,  
 and tube formation on Matrigel. **Curcumin** had no effect on  
 endothelial cell migration or attachment to either plastic or Matrigel.  
**Curcumin** treatment resulted in a dose-dependent inhibition of tube  
 formation when the cells were treated before plating or at the time of  
 plating on Matrigel. **Curcumin** treatment also caused the  
 preformed tubes to break down. **Curcumin** inhibited angiogenesis  
 in a s.c. Matrigel plug model in mice. The role of metalloproteinases  
 has been shown to be important in angiogenesis; therefore, zymography was  
 performed to determine whether **curcumin** affected protease  
 activity. Zymographs of **curcumin**-treated culture supernatants  
 showed a decrease in the gelatinolytic activities of secreted 53- and  
 72-kDa metalloproteinases. Western and Northern analysis showed a  
 dose-dependent decrease in the protein expression and transcript of 72  
 kDa, indicating that **curcumin** may be exerting its inhibitory  
 effect at both the transcriptional and posttranscriptional level. These  
 findings suggest that **curcumin** acts as an angiogenesis inhibitor  
 by modulating protease activity during endothelial morphogenesis.  
**Curcumin** could be developed as an **antiangiogenic** drug.  
 IT Major Concepts  
 Cardiovascular System (Transport and Circulation); Pharmacology  
 IT Chemicals & Biochemicals  
**curcumin**: cardiovascular-drug, **antiangiogenic**  
 agent, potential anticancer agent  
 RN 458-37-7 (**curcumin**)

=>

L8 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
 AN 1998:243121 BIOSIS  
 DN PREV199800243121  
 TI Evidence for angiostatic activity of **curcumin**.  
 AU Mohan, R.; Ashton, P.; Kasahara, N.; Pham, B. Q.; Russo, L. A.; Fini, M.  
 E.  
 CS Vision Res. Lab., New England Med. Center/Tufts Univ. Sch. Med., Boston,  
 MA, USA  
 SO IOVS, (March 15, 1998) Vol. 39, No. 4, pp. S895. print.  
 Meeting Info.: Annual Meeting of the Association for Research in Vision  
 and Ophthalmology. Fort Lauderdale, Florida, USA. May 10-15, 1998.  
 Association for Research in Vision and Ophthalmology.  
 DT Conference; (Meeting)  
 Conference; Abstract; (Meeting Abstract)  
 LA English  
 ED Entered STN: 4 Jun 1998  
 Last Updated on STN: 4 Jun 1998  
 CC Sense organs - General and methods 20001  
 Cytology - General 02502  
 Biochemistry studies - General 10060  
 Cardiovascular system - General and methods 14501  
 Pharmacology - General 22002  
 General biology - Symposia, transactions and proceedings 00520  
 IT Major Concepts  
 Cardiovascular System (Transport and Circulation); Pharmacology; Sense  
 Organs (Sensory Reception)  
 IT Parts, Structures, & Systems of Organisms  
 corneal fibroblast cells: sensory system, culture  
 IT Chemicals & Biochemicals  
**basic fibroblast growth factor;**  
**curcumin:** AP-1 inhibitor, angiostatic activity; AP-1:  
 transcription factor; NF-kappa B [nuclear factor-kappa B]:  
 transcription factor; PMA [phorbol 12-myristate 13-acetate]  
 IT Miscellaneous Descriptors  
 Meeting Abstract  
 ORGN Classifier  
 Leporidae 86040  
 Super Taxa  
 Lagomorpha; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 rabbit  
 Taxa Notes  
 Animals, Chordates, Lagomorphs, Mammals, Nonhuman Vertebrates, Nonhuman  
 Mammals, Vertebrates  
 RN 106096-93-9 (**basic fibroblast growth**  
**factor**)  
 458-37-7 (**curcumin**)  
 62-38-4Q (PMA)  
 64-13-1Q (PMA)  
 16561-29-8Q (PMA)  
 25087-26-7Q (PMA)  
 78565-16-9Q (PMA)  
 276704-22-4Q (PMA)  
 62-38-4Q (phorbol 12-myristate 13-acetate)  
 64-13-1Q (phorbol 12-myristate 13-acetate)  
 16561-29-8Q (phorbol 12-myristate 13-acetate)  
 25087-26-7Q (phorbol 12-myristate 13-acetate)  
 78565-16-9Q (phorbol 12-myristate 13-acetate)  
 276704-22-4Q (phorbol 12-myristate 13-acetate)

=&gt;

L6 ANSWER 1 OF 13 USPATFULL on STN  
 AN 2003:283096 USPATFULL  
 TI Composition for the treatment of damaged tissue  
 IN Dack, Kevin Neil, Kent, UNITED KINGDOM  
 Davies, Michael John, Kent, UNITED KINGDOM  
 Fish, Paul Vincent, Kent, UNITED KINGDOM  
 Huggins, Jonathan Paul, Kent, UNITED KINGDOM  
 McIntosh, Fraser Stuart, Kent, UNITED KINGDOM  
 Occleston, Nicholas Laurence, Kent, UNITED KINGDOM  
 PA Pfizer Inc. (non-U.S. corporation)  
 PI US 2003199440 A1 20031023  
 AI US 2002-131985 A1 20020425 (10)  
 RLI Continuation of Ser. No. US 2000-725295, filed on 29 Nov 2000, PENDING  
 PRAI GB 1999-30768 19991229  
 US 2000-186426P 20000302 (60)  
 DT Utility  
 FS APPLICATION  
 LREP PFIZER INC, 150 EAST 42ND STREET, 5TH FLOOR - STOP 49, NEW YORK, NY,  
 10017-5612  
 CLMN Number of Claims: 29  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 19445  
 TI Composition for the treatment of damaged tissue  
 AB A pharmaceutical for use in damaged tissue, such as wound, treatment  
 (e.g. healing) is described. The pharmaceutical comprising a composition  
 which comprises: (a) a growth factor; and (b) an inhibitor agent; and  
 optionally (c) a pharmaceutically acceptable carrier, diluent or  
 excipient; wherein the inhibitor agent can inhibit the action of at  
 least one specific adverse protein (e.g. a specific protease) that is  
 upregulated in a damaged tissue, such as a wound, environment.

L6 ANSWER 2 OF 13 USPATFULL on STN  
 AN 2003:265851 USPATFULL  
 TI Anti-**angiogenic** peptides  
 IN Rosenbaum, Jan Susan, Cincinnati, OH, UNITED STATES  
 Jones, David R., Milford, OH, UNITED STATES  
 Whitaker, George Brian, West Chester, OH, UNITED STATES  
 PI US 2003186868 A1 20031002  
 AI US 2002-263162 A1 20021002 (10)  
 PRAI US 2001-326712P 20011003 (60)  
 DT Utility  
 FS APPLICATION  
 LREP REGENERON PHARMACEUTICALS, INC, 777 OLD SAW MILL RIVER ROAD, TARRYTOWN,  
 NY, 10591  
 CLMN Number of Claims: 18  
 ECL Exemplary Claim: 1  
 DRWN 13 Drawing Page(s)  
 LN.CNT 2508  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 TI Anti-**angiogenic** peptides  
 AB Peptides that specifically interfere with the ability of VEGF.sub.165 to  
 interact with the NP-1 receptor or with a VEGFR-2/NP-1 co-receptor  
 complex are disclosed. The inventive peptides are useful to control  
 pathological **angiogenesis**, such as occurs in cancer and other  
 diseases. The peptides are based on a combination of basic residues  
 contained within Exon 6 of human placental growth factor (PIGF), coupled  
 at the carboxyl terminus to either Exon 8 of VEGF.sub.165 or Exon 7 of  
 PIGF. The peptides behave as antagonists of VEGF.sub.165 signaling  
 through a mechanism that involves competition for VEGF.sub.165 binding  
 at either the VEGFR-2/NP-1 complex or NP-1, without affecting VEGF  
 signaling through other pathways. This binding is sufficient to  
 attenuate pathological **angiogenesis** such as occurs in tumor

growth.

L6 ANSWER 3 OF 13 IFIPAT COPYRIGHT 2003 IFI on STN DUPLICATE 1  
AN 10063443 IFIPAT;IFIUDB;IFICDB  
TI CURCUMIN AND CURCUMINOID INHIBITION OF **ANGIOGENESIS**; SKIN  
DISORDERS  
INF ARBISER; JACK L., ATLANTA, GA, US  
IN ARBISER JACK L  
PAF Unassigned  
PA Unassigned Or Assigned To Individual (68000)  
AG PATREA L PABST ARNALL GOLDEN & GREGORY LLP, 2800 ONE ATLANTIC CENTER,  
1201 WEST PEACHTREE STREET, ATLANTA, GA, 303093450  
PI US 2002006966 A1 20020117  
AI US 1999-345712 19990630  
FI US 2002006966 20020117  
DT Utility; Patent Application - First Publication  
FS CHEMICAL  
APPLICATION  
GOVI (0001) The United States government has rights in this invention by  
virtue of grant R03 AR44947 from the National Institutes of Health.  
CLMN 16  
GI 3 Figure(s).  
FIGS. 1A-C describe the effect of curcumin on endothelial cell  
proliferation in the absence of basic fibroblast growth factor (bFGF;  
FIG. 1A), in the presence of bFGF (FIG. 1B) and in the absence of bFGF,  
where the endothelial cells have been transformed (FIG. 1C). The figures  
are graphs of cell number versus concentration of curcumin ( $\mu$  M).  
FIGS. 2A-2B describe the effect of curcumin on the extent of  
bFGF-stimulated neovascularization in the mouse cornea (FIG. 2A), in  
relation to bFGF-stimulated neovascularization in the absence of curcumin  
(FIG. 2B). The figures are graphs of vessel length (mm) and sector size  
(clock hours) comparing curcumin (10  $\mu$  M) with control TPCPD, with both  
in the presence of 80 ng bFGF.  
FIGS. 3A and 3B describe the effect of curcumin and other curcuminoids,  
tetrahydrocurcumin, bisdemethoxycurcumin, and demethoxycurcumin, on  
corneal neovascularization, as measured by vessel length (FIG. 3A) and by  
sector size (FIG. 3B).  
TI CURCUMIN AND CURCUMINOID INHIBITION OF **ANGIOGENESIS**; SKIN  
DISORDERS  
AB Methods for treating diseases or disorders of the skin which are  
characterized by **angiogenesis** have been developed using  
curcumin and curcumin analogs. Based on the results obtained with  
curcumin, it has been determined that other **angiogenesis**  
inhibitors can also be used to treat these skin disorders. It has further  
been discovered that curcumin acts to inhibit **angiogenesis** in  
part by inhibition of basic fibroblast growth factor (bFGF), and thereby  
provides a means for treating other disorders characterized by elevated  
levels of bFGF, such as bladder cancer, using curcumin and other  
analogues which also inhibit bFGF. Representative skin disorders to be  
treated include the malignant diseases **angiosarcoma**,  
hemangioendothelioma, basal cell carcinoma, squamous cell carcinoma,  
malignant melanoma and Kaposi's sarcoma, and the non-malignant diseases  
or conditions including psoriasis, lymphangiogenesis, hemangioma of  
childhood, Sturge-Weber syndrome, verruca vulgaris, neurofibromatosis,  
tuberous sclerosis, pyogenic granulomas, **recessive**  
**dystrophic epidermolysis bullosa**, venous  
ulcers, acne, rosacea, eczema, molluscum contagious, seborrheic  
keratosis, and actinic keratosis.  
  
L6 ANSWER 4 OF 13 USPATFULL on STN  
AN 2002:294281 USPATFULL  
TI Medical use of matrix metalloproteinase inhibitors for inhibiting tissue  
contraction  
IN Khaw, Peng Tee, London, UNITED KINGDOM

Schultz, Gregory S., Gainesville, FL, UNITED STATES

PI US 2002164319 A1 20021107

AI US 2002-135934 A1 20020429 (10)

RLI Division of Ser. No. US 1999-368307, filed on 3 Aug 1999, GRANTED, Pat. No. US 6379667 Division of Ser. No. US 1996-716155, filed on 19 Nov 1996, GRANTED, Pat. No. US 6093398 A 371 of International Ser. No. WO 1995-GB576, filed on 16 Mar 1995, UNKNOWN

PRAI GB 1994-5076 19940316

DT Utility

FS APPLICATION

LREP GREENLEE WINNER AND SULLIVAN P C, 5370 MANHATTAN CIRCLE, SUITE 201, BOULDER, CO, 80303

CLMN Number of Claims: 25

ECL Exemplary Claim: 1

DRWN 12 Drawing Page(s)

LN.CNT 1415

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Medical use of matrix metalloproteinase inhibitors for inhibiting tissue contraction

AB The use of an MMP inhibitor, especially a collagenase inhibitor, in the manufacture of a medicament for the treatment of a natural or artificial tissue comprising extracellular matrix components to inhibit contraction of the tissue and methods for the treatment of tissue comprising extracellular matrix components to inhibit contraction.

L6 ANSWER 5 OF 13 USPATFULL on STN

AN 2002:95355 USPATFULL

TI Medical use of matrix metalloproteinase inhibitors for inhibiting tissue contraction

IN Khaw, Peng Tee, London, UNITED KINGDOM

PA Schultz, Gregory S., Gainesville, FL, United States

University of Florida Research Foundation, Gainesville, FL, United States (U.S. corporation)

Moorfields Eye Hospital National Health Service Trust, London, UNITED KINGDOM (non-U.S. corporation)

PI US 6379667 B1 20020430

AI US 1999-368307 19990803 (9)

RLI Division of Ser. No. US 1996-716155, filed on 19 Nov 1996, now patented, Pat. No. US 6093398

PRAI GB 1994-5076 19940316

DT Utility

FS GRANTED

EXNAM Primary Examiner: Nashed, Nashaat T.

LREP Greenlee, Winner and Sullivan, P.C.

CLMN Number of Claims: 14

ECL Exemplary Claim: 1

DRWN 24 Drawing Figure(s); 12 Drawing Page(s)

LN.CNT 1374

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Medical use of matrix metalloproteinase inhibitors for inhibiting tissue contraction

AB The use of an MMP inhibitor, especially a collagenase inhibitor, in the manufacture of a medicament for the treatment of a natural or artificial tissue comprising extracellular matrix components to inhibit contraction of the tissue and methods for the treatment of tissue comprising extracellular matrix components to inhibit contraction.

L6 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 2

AN 2001:12261 CAPLUS

DN 134:66151

TI Curcumin and curcuminoid inhibition of **angiogenesis**

IN Arbiser, Jack L.

PA Emory University, USA

SO PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DT Patent  
LA English  
FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | WO 2001000201  | A1   | 20010104 | WO 2000-US17608 | 20000627 |
|      | W: AU, CA, JP  |      |          |                 |          |
|      | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                 |          |
|      | US 2002006966  | A1   | 20020117 | US 1999-345712  | 19990630 |
|      | EP 1196158   | A1   | 20020417 | EP 2000-941736  | 20000627 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI  |      |          |                 |          |
|      | US 2001025034  | A1   | 20010927 | US 2001-765491  | 20010118 |
| PRAI | US 1999-345712   | A    | 19990630 |                 |          |
|      | WO 2000-US17608  | W    | 20000627 |                 |          |

TI Curcumin and curcuminoid inhibition of **angiogenesis**

AB Methods for treating diseases or disorders of the skin which are characterized by **angiogenesis** have been developed using curcumin and curcumin analogs. Based on the results obtained with curcumin, it has been detd. that other **angiogenesis** inhibitors can also be used to treat these skin disorders. It has further been discovered that curcumin acts to inhibit **angiogenesis** in part by inhibition of basic fibroblast growth factor (bFGF), and thereby provides a means for treating other disorders characterized by elevated levels of bFGF, such as bladder cancer, using curcumin and other analogs which also inhibit bFGF. Representative skin disorders to be treated include the malignant diseases **angiosarcoma**, hemangioendothelioma, basal cell carcinoma, squamous cell carcinoma, malignant melanoma and Kaposi's sarcoma, and the non-malignant diseases or conditions including psoriasis, lymphangiogenesis, hemangioma of childhood, Sturge-Weber syndrome, verruca vulgaris, neurofibromatosis, tuberous sclerosis, pyogenic granulomas, **recessive dystrophic epidermolysis bullosa**, venous ulcers, acne, rosacea, eczema, molluscum contagiosus, seborrheic keratosis, and actinic keratosis.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 13 IFIPAT COPYRIGHT 2003 IFI on STN DUPLICATE 3

AN 10025024 IFIPAT;IFIUDB;IFICDB

TI CURCUMIN AND CURCUMINOID INHIBITION OF **ANGIOGENESIS**;  
ADMINISTERING TO THE INDIVIDUAL SUFFERING FROM DISORDERS CHARACTERIZED BY  
ELEVATED LEVELS OF BASIC FIBROBLAST GROWTH FACTOR A CURCUMINOID TO  
INHIBIT THE BASIC FIBROBLAST GROWTH FACTOR

INF Arbiser; Jack L., Atlanta, GA, US

IN Arbiser Jack L

PAF Emory University

PA Emory University (12419)

AG PATREA L. PABST HOLLAND & KNIGHT LLP, SUITE 2000, ONE ATLANTIC CENTER,  
1201 WEST PEACHTREE STREET, N.E., ATLANTA, GA, 30309-3400, US

PI US 2001025034 A1 20010927

AI US 2001-765491 20010118

RLI US 1999-345712 19990630 CONTINUATION

FI US 2001025034 20010927

DT Utility; Patent Application - First Publication

FS CHEMICAL

APPLICATION

GOVI (0001) The United States government has rights in this invention by  
virtue of grant R03 AR44947 from the National Institutes of Health.

CLMN 16

GI 3 Figure(s).

FIGS. 1A-C describe the effect of curcumin on endothelial cell  
proliferation in the absence of basic fibroblast growth factor (bFGF;



FIG. 1A), in the presence of bFGF (FIG. 1B) and in the absence of bFGF, where the endothelial cells have been transformed (FIG. 1C). The figures are graphs of cell number versus concentration of curcumin ( $\mu$ M).

FIGS. 2A-2B describe the effect of curcumin on the extent of bFGF-stimulated neovascularization in the mouse cornea (FIG. 2A), in relation to bFGF-stimulated neovascularization in the absence of curcumin (FIG. 2B). The figures are graphs of vessel length (mm) and sector size (clock hours) comparing curcumin (10  $\mu$ M) with control TPCPD, with both in the presence of 80 ng bFGF.

FIGS. 3A and 3B describe the effect of curcumin and other curcuminoids, tetrahydrocurcumin, bisdemethoxycurcumin, and demethoxycurcumin, on corneal neovascularization, as measured by vessel length (FIG. 3A) and by sector size (FIG. 3B).

TI CURCUMIN AND CURCUMINOID INHIBITION OF **ANGIOGENESIS**;  
ADMINISTERING TO THE INDIVIDUAL SUFFERING FROM DISORDERS CHARACTERIZED BY  
ELEVATED LEVELS OF BASIC FIBROBLAST GROWTH FACTOR A CURCUMINOID TO  
INHIBIT THE BASIC FIBROBLAST GROWTH FACTOR

AB Methods for treating diseases or disorders of the skin which are  
characterized by **angiogenesis** have been developed using  
curcumin and curcumin analogs. Based on the results obtained with  
curcumin, it has been determined that other **angiogenesis**  
inhibitors can also be used to treat these skin disorders. It has further  
been discovered that curcumin acts to inhibit **angiogenesis** in  
part by inhibition of basic fibroblast growth factor (bFGF), and thereby  
provides a means for treating other disorders characterized by elevated  
levels of bFGF, such as bladder cancer, using curcumin and other  
analogues which also inhibit bFGF. Representative skin disorders to be  
treated include the malignant diseases **angiosarcoma**,  
hemangioendothelioma, basal cell carcinoma, squamous cell carcinoma,  
malignant melanoma and Kaposi's sarcoma, and the non-malignant diseases  
or conditions including psoriasis, lymphangiogenesis, hemangioma of  
childhood, Sturge-Weber syndrome, verruca vulgaris, neurofibromatosis,  
tuberous sclerosis, pyogenic granulomas, **recessive**  
**dystrophic epidermolysis bullosa**, venous  
ulcers, acne, rosacea, eczema, molluscum contagiosum, seborrheic  
keratosis, and actinic keratosis.

L6 ANSWER 8 OF 13 USPATFULL on STN

AN 2001:221068 USPATFULL

TI Use of adenosine A3 receptor antagonists to inhibit tumor growth

IN Leung, Edward, Cary, NC, United States

Baraldi, Pier Giovanni, Ferrara, Italy

Borea, Pier Andrea, Ferrara, Italy

Chen, Shih-Fong, Apex, NC, United States

PA King Pharmaceuticals Research and Development, Inc., Cary, NC, United  
States (U.S. corporation)

PI US 6326390 B1 20011204

AI US 1999-377271 19990819 (9)

PRAI US 1998-97852P 19980825 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Jones, Dwayne C.

LREP Roberts Abokhair & Mardula, LLC

CLMN Number of Claims: 39

ECL Exemplary Claim: 1

DRWN 4 Drawing Figure(s); 4 Drawing Page(s)

LN.CNT 946

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Use of adenosine A3 receptor antagonists to inhibit tumor growth

AB Tumor growth and metastasis can be inhibited by administration of  
adenosine A.sub.1 and/or A.sub.3 antagonists, preferably A.sub.3  
antagonists, to a patient. The antagonists can be, and preferably are,  
administered in combination with other anti-tumor agents, such as anti-  
**angiogenic** agents (including adenosine A.sub.2a antagonists)

and/or cytotoxic agents. Because the cytotoxic agents attack the tumor cells themselves, and the anti-**angiogenic** agents prevent the growth of vasculature which would otherwise support the growth of the tumor cells.

L6 ANSWER 9 OF 13 USPATFULL on STN  
AN 2000:106073 USPATFULL  
TI Enzymatic nucleic acids that cleave C-fos  
IN Jarvis, Thale, Boulder, CO, United States  
McSwiggen, James A., Boulder, CO, United States  
Stinchcomb, Dan T., Ft. Collins, CO, United States  
PA Ribozyme Pharmaceuticals, Inc., Boulder, CO, United States (U.S. corporation)  
PI US 6103890 20000815  
AI US 1997-998099 19971224 (8)  
RLI Continuation-in-part of Ser. No. US 1995-373124, filed on 13 Jan 1995, now patented, Pat. No. US 5646042 which is a continuation-in-part of Ser. No. US 1994-245466, filed on 18 May 1994, now abandoned  
PRAI US 1997-37658P 19970123 (60)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Brusca, John S.; Assistant Examiner: Shibuya, Mark L.  
LREP Lyon & Lyon LLP  
CLMN Number of Claims: 19  
ECL Exemplary Claim: 1  
DRWN 13 Drawing Figure(s); 10 Drawing Page(s)  
LN.CNT 3659  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
TI Enzymatic nucleic acids that cleave C-fos  
AB Enzymatic nucleic acid molecules which cleave c-fos RNA.

L6 ANSWER 10 OF 13 USPATFULL on STN  
AN 2000:94697 USPATFULL  
TI Medical use of matrix metalloproteinase inhibitors for inhibiting tissue contraction  
IN Khaw, Peng Tee, London, United Kingdom  
Schultz, Gregory S., Gainesville, FL, United States  
PA University of Florida Research Found, Gainesville, FL, United States (U.S. corporation)  
Institute of Ophthalmology, London, United Kingdom (non-U.S. corporation)  
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PI US 6093398 20000725  
WO 9524921 19950921  
AI US 1996-716155 19961119 (8)  
WO 1995-GB576 19950316  
19961119 PCT 371 date  
19961119 PCT 102(e) date  
PRAI GB 1994-5076 19940316  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Achutamurthy, Ponnathapura; Assistant Examiner: Nashed, Nashaat T.  
LREP Greenlee, Winner and Sullivan, P.C.  
CLMN Number of Claims: 19  
ECL Exemplary Claim: 1  
DRWN 24 Drawing Figure(s); 12 Drawing Page(s)  
LN.CNT 1437  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
TI Medical use of matrix metalloproteinase inhibitors for inhibiting tissue contraction  
AB The use of an MMP inhibitor, especially a collagenase inhibitor, in the manufacture of a medicament for the treatment of a natural or artificial

tissue comprising extracellular matrix components to inhibit contraction of the tissue and methods for the treatment of tissue comprising extracellular matrix components to inhibit contraction.

- L6 ANSWER 11 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
DUPLICATE 4  
AN 1998:257813 BIOSIS  
DN PREV199800257813  
TI Basic fibroblast growth factor: A missing link between collagen VII,  
increased collagenase, and squamous cell carcinoma in **recessive  
dystrophic epidermolysis bullosa**.  
AU Arbiser, Jack L. [Reprint author]; Fine, Jo-David; Murrell, Dedee; Paller,  
Amy; Connors, Susan; Keough, Karen; Marsh, Elizabeth; Folkman, Judah  
CS Dep. Dermatol., Harvard Med. Sch., Boston, MA, USA  
SO Molecular Medicine (New York), (March, 1998) Vol. 4, No. 3, pp. 191-195.  
print.  
ISSN: 1076-1551.  
DT Article  
LA English  
ED Entered STN: 9 Jun 1998  
Last Updated on STN: 12 Aug 1998  
TI Basic fibroblast growth factor: A missing link between collagen VII,  
increased collagenase, and squamous cell carcinoma in **recessive  
dystrophic epidermolysis bullosa**.  
AB Background: Patients with **recessive dystrophic  
epidermolysis bullosa** (RDEB) have deficiencies of  
collagen type VII and have elevated levels of fibroblast collagenase, and  
a greatly increased risk of cutaneous squamous cell carcinoma. Patients  
with other genetic blistering disorders do not have elevated collagenase  
or an increased risk of squamous cell carcinoma, despite chronic wounding.  
The connection between collagen type VII deficiency, increased  
collagenase, and squamous cell carcinoma is not understood. Materials and  
Methods: Urine from 81 patients with RDEB (39 patients), junctional  
epidermolysis bullosa (JEB; 12 patients), and epidermolysis bullosa  
simplex (EBS; 30 patients), as well as unaffected family members of RDEB  
patients (33 patients), was tested for the presence of basic fibroblast  
growth factor (bFGF) using a sensitive radioimmunoassay. These patients  
included many who were enrolled in the Epidermolysis Bullosa Registry and  
others who were referred by their physicians. Results: Fifty-one percent  
of patients with RDEB had elevated levels (>5000 pg/g) of urinary bFGF.  
In contrast, none of the patients with JEB had elevated levels of bFGF.  
Twenty-one percent of clinically unaffected family members had elevated  
levels of bFGF, and 13% of patients with EBS had elevated levels of bFGF.  
The frequency of elevated bFGF values among all groups was statistically  
significant ( $p = 0.002$ ), and the levels of bFGF in RDEB patients were  
significantly elevated compared with those of other groups ( $p < 0.05$ ).  
Conclusions: We have found that patients with RDEB have elevated levels of  
bFGF, which may contribute to increased fibroblast collagenase and the  
development of squamous cell carcinoma. These results suggest a novel  
treatment for RDEB, namely, **angiogenesis** inhibitors, which may  
antagonize the effects of bFGF in this disorder. There are currently no  
other means of treatment for this disorder, which has a high morbidity and  
mortality rate.
- L6 ANSWER 12 OF 13 CANCERLIT on STN  
DUPLICATE 5  
AN 91357222 CANCERLIT  
DN 91357222 PubMed ID: 1884860  
TI Metastatic squamous cell carcinoma resembling **angiosarcoma**  
complicating dystrophic epidermolysis bullosa.  
AU McGrath J A; Schofield O M; Mayou B J; McKee P H; Eady R A  
CS Institute of Dermatology, United Medical School, St. Thomas' Hospital,  
London, UK.  
SO DERMATOLOGICA, (1991) 182 (4) 235-8.  
Journal code: 0211607. ISSN: 0011-9075.

CY Switzerland  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS MEDLINE; Priority Journals  
 OS MEDLINE 91357222  
 EM 199110  
 ED Entered STN: 19941107  
 Last Updated on STN: 19941107  
 TI Metastatic squamous cell carcinoma resembling **angiosarcoma** complicating dystrophic epidermolysis bullosa.  
 AB We report a patient with generalized **recessive dystrophic epidermolysis bullosa** (RDEB) who developed 3 squamous cell carcinomas. The tumours appeared simultaneously at acral sites on both upper limbs and were poorly differentiated. Despite surgery and radiotherapy the patient died from metastatic disease within 6 months of presentation. This case highlights many of the typical features of this complication of RDEB, including the overall poor prognosis. Of particular interest was the histology of one of the tumours which caused diagnostic difficulties: haematoxylin and eosin staining suggested an **angiosarcomatous** pathology, but the use of immunocytochemistry proved that the tumour was a squamous cell carcinoma in origin.

L6 ANSWER 13 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
 AN 1983:238423 BIOSIS  
 DN PREV198375088423; BA75:88423  
 TI COLCHICINE INDUCED MODULATION OF COLLAGENASE IN HUMAN SKIN FIBROBLAST CULTURES 2. A PROBE FOR DEFECTIVE REGULATION IN EPIDERMOLYSIS BULLOSA.  
 AU BAUER E A [Reprint author]; VALLE K-J; ESTERLY N B  
 CS DIVISION OF DERMATOLOGY, WASHINGTON UNIVERSITY SCHOOL OF MEDICINE, CAMPUS BOX 8123, 4950 AUDUBON BOULEVARD, ST LOUIS, MISSOURI 63110, USA  
 SO Journal of Investigative Dermatology, (1982) Vol. 79, No. 6, pp. 403-407. CODEN: JIDEAE. ISSN: 0022-202X.  
 DT Article  
 FS BA  
 LA ENGLISH  
 TI COLCHICINE INDUCED MODULATION OF COLLAGENASE IN HUMAN SKIN FIBROBLAST CULTURES 2. A PROBE FOR DEFECTIVE REGULATION IN EPIDERMOLYSIS BULLOSA.  
 AB The addition of colchicine to cultures of normal human skin fibroblasts produces a significant stimulation of collagenase. Because this finding implies a role for the microtubule system in the regulation of normal collagenase synthesis, colchicine was used as a probe for aberrations in this enzyme in epidermolysis bullosa. In fibroblast cultures from the dominant simplex, dominant dystrophic and recessive lethal forms of epidermolysis bullosa, 10<sup>-6</sup> M colchicine produced approximately a 2-fold increase in collagenase in the culture medium, a finding shown by biosynthetic studies to be attributable to enhanced synthesis of enzyme protein. In the case of typical **recessive dystrophic epidermolysis bullosa**, a disease characterized by excessive collagenase synthesis, the fibroblasts could also be stimulated to produce additional collagenase, despite having elevated baseline synthetic rates. Fibroblasts isolated from 1 recessive epidermolysis bullosa [REB] patient were resistant to the stimulatory effects of colchicine in concentrations up to 5 times 10<sup>-6</sup> M. In the absence of colchicine, collagenase synthesis in this patient's cells (termed REBc-) was 3-4 times that of normal controls, suggesting that the as yet undefined cellular function that is abrogated (or stimulated) by colchicine in normal cells may have been genetically impaired in these REBc- cells. Despite the resistance to colchicine, as manifested by the failure to stimulate collagenase, gross parameters of microtubular function, such as cell replication, were intact. Phenotypically, this patient had a form of epidermolysis bullosa intermediate between typical recessive dystrophic and recessive lethal forms of the disease. Although an experimentally induced blister was located in the lamina lucida, hypoplastic anchoring fibrils were also observed. These findings, in

addition to the marked increase in collagenase synthesis, suggest the possibility that this patient may represent a compound heterozygote of 2 forms of epidermolysis bullosa and that colchicine may be useful in defining other such patients.

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L5 ANSWER 52 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Studies on curcumin and ~~curcuminoids~~ Part 18. Evaluation of  
Curcuma products by the use of standardized reference color values  
SO Zeitschrift fuer Lebensmittel-Untersuchung und -Forschung (1992), 194(2),  
129-30  
CODEN: ZLUFAR; ISSN: 0044-3026  
AB Studies of com. prepns. of "pure" curcumin (I) by the author's HPLC method  
showed the presence of 7.1-17.2% of demethoxy-I and 1.0-9.6% of  
bis-demethoxy-I. Evaluation of these contents in the same samples by  
absorbance measurements, and consideration of the author's own color  
values (CV) for the pure compds. measured at 420, 425, and 430 nm, showed  
agreement to within 5.8%. The necessity of using accurate CV measured  
with pure ref. materials when quantifying the food dye I in com. prepns.  
by absorbance measurements is underlined.  
PY 1992  
AU Toennesen, Hanne Hjorth

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- L5 ANSWER 55 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Studies on curcumin and **curcuminoids**. XVI. Effect of curcumin analogs on hyaluronic acid degradation in vitro  
SO International Journal of Pharmaceutics (1989), 51(3), 259-61  
CODEN: IJPHDE; ISSN: 0378-5173  
AB Curcumin, **demethoxycurcumin**, and bisdemethoxycurcumin of *Curcuma longa* showed a catalytic effect on the degrdn. of hyaluronic acid (HA) by influencing the formation of OH radical which caused the HA depolymn. The effect of **curcuminoids** was inhibited by addn. of a hydroxyl radical quencher (mannitol).  
PY 1989  
AU Toennesen, Hanne Hjorth
- L5 ANSWER 56 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Studies on curcumin and **curcuminoids**. XV. Catalytic effect of demethoxy- and bisdemethoxycurcumin on the peroxidation of linoleic acid by 15-lipoxygenase  
SO International Journal of Pharmaceutics (1989), 51(2), 179-81  
CODEN: IJPHDE; ISSN: 0378-5173  
AB Curcumin, **demethoxycurcumin**, and bisdemethoxycurcumin (0.0067-0.0003 mg/mL) had a catalytic effect on 15-lipoxygenase-mediated peroxidn. of linoleic acid. Bisdemethoxycurcumin at 0.0133 mg/mL had an inhibitory action. The com. prepn. contg. all 3 curcumins had a synergistic action. The Lineweaver plots for demethoxy- and bisdemethoxycurcumin indicated an uncompetitive activation mechanism. The anti-inflammatory action of curcumins is discussed in light of the above findings.  
PY 1989  
AU Toennesen, Hanne Hjorth
- L5 ANSWER 57 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN  
TI High performance liquid chromatographic analysis of **curcuminoids** and their photo-oxidative decomposition compounds in *Curcuma longa* L  
SO Journal of Liquid Chromatography (1988), 11(11), 2295-304  
CODEN: JLCHD8; ISSN: 0148-3919  
AB Photochem. oxidn. of **curcuminoids** such as curcumin, bisdemethoxycurcumin, and **demethoxycurcumin** in dry powder of *Curcuma longa* (zingiberaceae) root and in EtOH and MeOH exts. has been studied following sunlight exposure for 120 h. Whatman PartisSphere-5 NH2 and Whatman PartisSphere-5 WCX columns were used to analyze **curcuminoids** and their degrdn. products. The **curcuminoids** were found to be more stable in the dry powder of *C. longa* root than in EtOH and MeOH exts. Vanillin, p-hydroxybenzaldehyde, ferulic aldehyde, p-hydroxybenzoic acid, vanillic acid, and ferulic acid were identified as the oxidn. products.  
PY 1988  
AU Khurana, Amrik; Ho, Chi Tang
- L5 ANSWER 58 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN  
TI High performance liquid chromatographic separation and spectral characterization of the pigments in turmeric and annatto  
SO Journal of Food Science (1988), 53(6), 1823-6  
CODEN: JFDSAZ; ISSN: 0022-1147  
AB High performance liq. chromatog. sepns. for the detn. of the pigments in the food colorants, annatto and turmeric, were developed. Chromatog. anal. time for the isocratic system was 10 min and 22 min for the gradient system. The isocratic sepn. employed a 25 cm .times. 4.6 mm i.d. Zorbax ODS column with a 58/42 (vol./vol.) mixt. of water/tetrahydrofuran, THF,

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at 1 mL/min. A gradient water/THF system using the same components was also developed to improve the resoln. between the **curcuminoids**. Sample prepn. consists of diln. and filtration of the exts. The 3 major pigments in turmeric, identified from visible and fluorescence stop flow spectra, were curcumin, **demethoxycurcumin**, and bisdemethoxycurcumin. Absorbance, excitation and emission max. for the 3 **curcuminoids** plus the carotenoids, bixin and norbixin, were detd.

PY 1988

AU Rouseff, Russell L.

L5 ANSWER 59 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN

TI Separation and determination of **curcuminoids** in *Curcuma longa* L. and its preparation by HPLC

SO Yaoxue Xuebao (1986), 21(5), 382-5

CODEN: YHHPAL; ISSN: 0513-4870

AB Curcumin (I) [458-37-7], **demethoxycurcumin** (II) [22608-11-3] and bisdemethoxycurcumin (III) were detd. in *C. longa* by HPLC by using a YWG-C18H35 column, THF-H<sub>2</sub>O-HOAC (36:58:6 vol./vol./vol.) as the mobile phase, and detector set at 254 nm. Naphthalene was used as internal std. Recoveries were 96.2-96.9% and the relative std. deviations 1.74, 0.67, and 0.53% for I, II, and III, resp. The method is fast and simple with no interference.

PY 1986

AU Zhao, Deyong; Yang, Mokun

L5 ANSWER 60 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN

TI Studies on Chinese *Curcuma* plants. IV. Assay of **curcuminoids** in the root and tuber of *Curcuma* spp

SO Zhongcaoyao (1983), 14(2), 59-63

CODEN: CTYAD8; ISSN: 0253-2670

AB curcumin (I) [458-37-7], **demethoxycurcumin** (II) and bis(demethoxy)curcumin (III) were detd. in the root or bulb of *Curcuma* by spectrophotometry. The root or bulb was dried, powd. and the powd was extd. into MeOH, which was dild. and analyzed at 418 nm for the detn. of total **curcuminoids**. For the detn. of I, II and III, the ext. was sepd. by TLC and fractions were measured spectrophotometrically at 428, 422 and 417 nm, resp. The calibration plots were linear to .apprx.4 .mu.g/mL. Highest **curcuminoid** contents were detected in *C. longa*, followed by *C. wenyujin*, *C. xanthorrhiza*, *C. kwangsiensis* and *C. aeruginosa*. Regional and seasonal variations in the **curcuminoid** contents were obsd.

PY 1983

AU Chen, Jianmin; Chen, Yuheng; Yu, Jingguang

=> d 50-55 .mano

L5 ANSWER 50 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN

TI Studies on curcumin and **curcuminoids**. Part 21. Variation in the **curcuminoid** content in *Curcuma longa* and *C. aromatica* from India during one season

SO Zeitschrift fuer Lebensmittel-Untersuchung und -Forschung (1992), 194(6), 570-2

CODEN: ZLUFAR; ISSN: 0044-3026

AB **Curcuminoid** levels in the primary and secondary rhizomes (bulbs and fingers) of 3 *C. longa* and 3 *C. aromatica* varieties decreased during a 17-wk maturity period (between age 19-36 wks). Although the total pigment levels of both species were similar, a slight difference in curcumin and demethoxy- and bisdemethoxycurcumin distribution between the rhizome parts

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was obsd.

PY 1992

AU Toennesen, Hanne Hjorth; Karlsen, Jan; Grislingaas, Anne Lise;  
Balakrishnan, Korattiyil Velayudhan Nair; Ayyappan, Payyeri; Verghese,  
James

L5 ANSWER 51 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN

TI Antioxidant activity of tropical ginger extracts and analysis of the  
contained **curcuminoids**

SO Journal of Agricultural and Food Chemistry (1992), 40(8), 1337-40  
CODEN: JAFCAU; ISSN: 0021-8561

AB Antioxidant activities of the rhizomes of 9 tropical gingers (*Curcuma*  
*aeruginosa*, *C. domestica*, *C. heyneana*, *C. mangga*, *C. xanthorrhiza*,  
*Zingiber cassumunar*, *Phaeomeria speciosa*, *Alpinia galanga*, and *Amomum*  
*kepulaga*) were measured by thiocyanate and TBA methods in a aq. alc.  
system after extn. and fractionation with org. solvents. The quantity of  
3 known **curcuminoids** (curcumin, **demethoxycurcumin** and  
bisdemethoxycurcumin), potent antioxidants of ginger and spice species, in  
the exts. was detd. by HPLC. The antioxidant activity of the spice exts.  
was greater than that estd. from the actual quantity of 3 known  
**curcuminoids** in the exts.

PY 1992

AU Jitoe, Akiko; Masuda, Toshiya; Tengah, I. G. P.; Suprpta, Dewa N.; Gara,  
I. W.; Nakatani, Nobuji

L5 ANSWER 52 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN

TI Studies on curcumin and **curcuminoids**. Part 18. Evaluation of  
Curcuma products by the use of standardized reference color values

SO Zeitschrift fuer Lebensmittel-Untersuchung und -Forschung (1992), 194(2),  
129-30  
CODEN: ZLUFAR; ISSN: 0044-3026

AB Studies of com. preps. of "pure" curcumin (I) by the author's HPLC method  
showed the presence of 7.1-17.2% of demethoxy-I and 1.0-9.6% of  
bis-demethoxy-I. Evaluation of these contents in the same samples by  
absorbance measurements, and consideration of the author's own color  
values (CV) for the pure compds. measured at 420, 425, and 430 nm, showed  
agreement to within 5.8%. The necessity of using accurate CV measured  
with pure ref. materials when quantifying the food dye I in com. preps.  
by absorbance measurements is underlined.

PY 1992

AU Toennesen, Hanne Hjorth

L5 ANSWER 53 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN

TI Studies on curcumin and **curcuminoids**. Part 19. Evaluation of  
thin-layer chromatography for the quantitation of curcumin and  
**curcuminoids**

SO Zeitschrift fuer Lebensmittel-Untersuchung und -Forschung (1991), 193(6),  
548-50  
CODEN: ZLUFAR; ISSN: 0044-3026

AB TLC was evaluated as an alternative to HPLC for the quantitation of  
**curcuminoids** in Curcuma exts. Thus, curcumin (I) was effectively  
sepd. from demethoxy-I or bisdemethoxy-I on either pure silica gel or an  
amino-bonded gel, although improved I stability and lower irreversible  
adsorption at the application spot were obsd. with the latter phase. A  
std. deviation of .ltoreq.6% was obsd. for all **curcuminoid**  
detns. at the concn. range 0.008-0.08 mg/mL for an application vol. of 10  
.mu.L to the amino phase compared to HPLC, indicating the former a viable  
alternative providing conditions and approx. starting conditions are  
standardized.

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PY 1991  
AU Toennesen, Hanne Hjorth; Grislingaas, Anne Lise; Karlsen, Jan

L5 ANSWER 54 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Studies on curcumin and **curcuminoids**. Part 17. Variation in  
the content of **curcuminoids** in Curcuma longa from Nepal during  
one season  
SO Zeitschrift fuer Lebensmittel-Untersuchung und -Forschung (1989), 189(2),  
116-18  
CODEN: ZLUFAR; ISSN: 0044-3026  
AB The av. **curcuminoid** content of the rhizomes of C. longa included  
1.11, 0.86, and 1.62% of curcumin (I), demethoxy-I, and bis-demethoxy-I,  
resp.; no changes in these levels were obsd. during a 17-wk. growth  
period.  
PY 1989  
AU Toennesen, Hanne Hjorth; Karlsen, Jan; Adhikary, Sitaram R.; Pandey, Rita

L5 ANSWER 55 OF 60 CAPLUS COPYRIGHT 2003 ACS on STN  
TI Studies on curcumin and **curcuminoids**. XVI. Effect of curcumin  
analogs on hyaluronic acid degradation in vitro  
SO International Journal of Pharmaceutics (1989), 51(3), 259-61  
CODEN: IJPHDE; ISSN: 0378-5173  
AB Curcumin, **demethoxycurcumin**, and bisdemethoxycurcumin of Curcuma  
longa showed a catalytic effect on the degrdn. of hyaluronic acid (HA) by  
influencing the formation of OH radical which caused the HA depolymn. The  
effect of **curcuminoids** was inhibited by addn. of a hydroxyl  
radical quencher (mannitol).  
PY 1989  
AU Toennesen, Hanne Hjorth

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- L4 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Microarray-based analysis of anti-angiogenic activity of **demethoxycurcumin** on human umbilical vein endothelial cells: Crucial involvement of the down-regulation of matrix metalloproteinase  
 SO Japanese Journal of Cancer Research (2002), 93(12), 1378-1385  
 CODEN: JJCREP; ISSN: 0910-5050  
 AB CDNA microarray-based gene expression anal. has been successfully employed to explore the action mechanism and to validate the targets of several drugs. In the present study, we evaluated anti-angiogenic activity of **demethoxycurcumin** (DC), a structural analog of **curcumin**, isolated from *Curcuma aromatica*, and investigated the effect of DC on genetic reprogramming in cultured human umbilical vein endothelial cells (HUVECs) using cDNA microarray anal. Of 1024 human cancer-focused genes arrayed, 187 genes were up-regulated and 72 genes were down-regulated at least 2-fold by DC. Interestingly, 9 **angiogenesis**-related genes were down-regulated over 5-fold in response to DC, suggesting that the genetic reprogramming was crucially involved in anti-**angiogenesis** by the compd. To verify the results obtained from cDNA microarray anal., matrix metalloproteinase-9 (MMP-9), the product of one of the **angiogenesis**-related genes down-regulated over 5-fold by DC, was investigated using gelatin zymog. DC potently inhibited the expression of MMP-9, yet showed no direct effect on its activity. These data show that gene expressional change of MMP-9 is a major mediator for **angiogenesis** inhibition by DC.  
 PY 2002  
 AU Kim, Jin Hee; Shim, Joong Sup; Lee, Seok-Ki; Kim, Kyu-Won; Rha, Sun Young; Chung, Hyun Cheol; Kwon, Ho Jeong
- L4 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Hydrazinocurcumin, a novel synthetic **curcumin** derivative, is a potent inhibitor of endothelial cell proliferation  
 SO Bioorganic & Medicinal Chemistry (2002), 10(8), 2439-2444  
 CODEN: BMECEP; ISSN: 0968-0896  
 AB **Curcumin** and some of its derivs. were known as in vivo inhibitors of **angiogenesis**. In present study, a novel **curcumin** deriv., named hydrazinocurcumin (HC) was synthesized and examd. for its biol. activities. HC potently inhibited the proliferation of bovine aortic endothelial cells (BAECs) at a nanomolar concn. (IC50=520 nM) without cytotoxicity. In vivo and in vitro **angiogenesis** expts. showed HC as a new candidate for anti-angiogenic agent.  
 PY 2002  
 AU Sup Shim, Joong; Hoon Kim, Dong; Jung, Hye Jin; Hee Kim, Jin; Lim, Dongyeol; Lee, Seok-Ki; Kim, Kyu-Won; Ahn, Jong Woong; Yoo, Jong-Shin; Rho, Jung-Rae; Shin, Jongheon; Jeong Kwon, Ho
- L4 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI **Curcumin** and **curcuminoid** inhibition of **angiogenesis**  
 SO PCT Int. Appl., 30 pp.  
 CODEN: PIXXD2  
 AB Methods for treating diseases or disorders of the skin which are characterized by **angiogenesis** have been developed using **curcumin** and **curcumin** analogs. Based on the results obtained with **curcumin**, it has been detd. that other **angiogenesis** inhibitors can also be used to treat these skin disorders. It has further been discovered that **curcumin** acts to inhibit **angiogenesis** in part by inhibition of basic fibroblast growth factor (bFGF), and thereby provides a means for treating other

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disorders characterized by elevated levels of bFGF, such as bladder cancer, using **curcumin** and other analogs which also inhibit bFGF. Representative skin disorders to be treated include the malignant diseases angiosarcoma, hemangioendothelioma, basal cell carcinoma, squamous cell carcinoma, malignant melanoma and Kaposi's sarcoma, and the non-malignant diseases or conditions including psoriasis, lymphangiogenesis, hemangioma of childhood, Sturge-Weber syndrome, verruca vulgaris, neurofibromatosis, tuberous sclerosis, pyogenic granulomas, recessive dystrophic epidermolysis bullosa, venous ulcers, acne, rosacea, eczema, molluscum contagious, seborrheic keratosis, and actinic keratosis.

PY 2001  
2002  
2002  
2001

IN Arbiser, Jack L.

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 2001000201  | A1   | 20010104 | WO 2000-US17608 | 20000627 |
| W: AU, CA, JP  |      |          |                 |          |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                 |          |
| US 2002006966  | A1   | 20020117 | US 1999-345712  | 19990630 |
| EP 1196158   | A1   | 20020417 | EP 2000-941736  | 20000627 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI  |      |          |                 |          |
| US 2001025034  | A1   | 20010927 | US 2001-765491  | 20010118 |

L4 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN

TI **Curcuminoids** inhibit the angiogenic response stimulated by fibroblast growth factor-2, including expression of matrix metalloproteinase gelatinase B

SO Journal of Biological Chemistry (2000), 275(14), 10405-10412  
CODEN: JBCHA3; ISSN: 0021-9258

AB We have studied mechanisms controlling activation of the gelatinase B gene (matrix metalloproteinase-9) by fibroblast growth factor-2 (FGF-2) during **angiogenesis**, and the effects of the natural product **curcuminoids** on this process. Using a transgenic mouse (line 3445) harboring a gelatinase B promoter/lacZ fusion gene, we demonstrate FGF-2 stimulation of reporter gene expression in endothelial cells of invading neocapillaries in the corneal micropocket assay. Using cultured corneal cells, we show that FGF-2 stimulates DNA binding activity of transcription factor AP-1 but not NF- $\kappa$ B and that AP-1 stimulation is inhibited by **curcuminoids**. We further show that induction of gelatinase B transcriptional promoter activity in response to FGF-2 is dependent on AP-1 but not NF- $\kappa$ B response elements and that promoter activity is also inhibited by **curcuminoids**. In rabbit corneas, the angiogenic response induced by implantation of an FGF-2 pellet is inhibited by the coimplantation of a **curcuminoid** pellet, and this correlates with inhibition of endogenous gelatinase B expression induced by FGF-2. Angiostatic efficacy in the cornea is also, obsd. when **curcuminoids** are provided to mice in the diet. Our findings provide evidence that **curcuminoids** target the FGF-2 angiogenic signaling pathway and inhibit expression of gelatinase B in the angiogenic process.

PY 2000

AU Mohan, Royce; Sivak, Jeremy; Ashton, Paul; Russo, Laoti A.; Pham, Bao Q.; Kasahara, Niro; Raizman, Michael B.; Fini, M. Elizabeth

L4 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN

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TI **Curcumin** is an in vivo inhibitor of **angiogenesis**  
SO Molecular Medicine (New York) (1998), 4(6), 376-383  
CODEN: MOMEF3; ISSN: 1076-1551  
AB **Curcumin** is a small-mol.-wt. compd. that is isolated from the commonly used spice turmeric. In animal models, **curcumin** and its derivs. have been shown to inhibit the progression of chem. induced colon and skin cancers. The genetic changes in carcinogenesis in these organs involve different genes, but **curcumin** is effective in preventing carcinogenesis in both organs. A possible explanation for this finding is that **curcumin** may inhibit **angiogenesis**.  
**Curcumin** was tested for its ability to inhibit the proliferation of primary endothelial cells in the presence and absence of basic fibroblast growth factor (bFGF), as well as its ability to inhibit proliferation of an immortalized endothelial cell line. **Curcumin** and its derivs. were subsequently tested for their ability to inhibit bFGF-induced corneal neovascularization in the mouse cornea. Finally, **curcumin** was tested for its ability to inhibit phorbol ester-stimulated vascular endothelial growth factor (VEGF) mRNA prodn. **Curcumin** effectively inhibited endothelial cell proliferation in a dose-dependent manner. **Curcumin** and its derivs. demonstrated significant inhibition of bFGF-mediated corneal neovascularization in the mouse. **Curcumin** had no effect on phorbol ester-stimulated VEGF prodn. These results indicate that **curcumin** has direct antiangiogenic activity in vitro and in vivo. The activity of **curcumin** in inhibiting carcinogenesis in diverse organs such as the skin and colon may be mediated in part through **angiogenesis** inhibition.  
PY 1998  
AU Arbiser, Jack L.; Klauber, Nancy; Rohan, Richard; Van Leeuwen, Robert; Huang, Mou-Tuan; Fisher, Carolyn; Flynn, Evelyn; Byers, H. Randolph

Paddy

L7 ANSWER 6 OF 6 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN  
 AN 97:32048 SCISEARCH  
 GA The Genuine Article (R) Number: VZ915  
 TI The prognostic significance of **basic fibroblast growth factor in cutaneous malignant melanoma**  
 AU Alalousi S; Barnhill R (Reprint); Blessing K; Barksdale S  
 CS HARVARD UNIV, DEPT PATHOL, DIV DERMATOPATHOL, BRIGHAM & WOMENS HOSP, SCH MED, 75 FRANCIS ST, BOSTON, MA 02115 (Reprint); HARVARD UNIV, DEPT PATHOL, DIV DERMATOPATHOL, BRIGHAM & WOMENS HOSP, SCH MED, BOSTON, MA 02115; UNIV ABERDEEN, ABERDEEN, SCOTLAND  
 CYA USA; SCOTLAND  
 SO JOURNAL OF CUTANEOUS PATHOLOGY, (DEC 1996) Vol. 23, No. 6, pp. 506-510. Publisher: MUNKSGAARD INT PUBL LTD, 35 NORRE SOGADE, PO BOX 2148, DK-1016 COPENHAGEN, DENMARK. ISSN: 0303-6987.  
 DT Article; Journal  
 FS CLIN  
 LA English  
 REC Reference Count: 11  
 AB Basic fibroblast growth factor (bFGF) is a growth factor and an angiogenesis factor which may play a role in the evolution of cutaneous malignant melanoma (CMM). In this study, we evaluated the distribution of bFGF in CMM using immunochemical methods and correlated the pattern of bFGF expression with the clinical course. Formalin-fixed, paraffin-embedded sections of 46 CMMs were immunostained with a high-affinity purified antibody raised against human bFGF. CMM were categorized into lesions that exhibited subsequent recurrence (local, regional and/or systemic) or recurrence-free lesions. The minimum follow-up time was 5 years. Expression of bFGF within the tumors and in peritumoral and intratumoral blood vessels was similar in the two groups. Comparable results were attained when 8 recurring vs 8 non-recurring CMM, selected from the above tumors, were matched for age, gender, anatomic site and tumor thickness. These results suggest that the biologic behavior of CMM may not be predicted by immunoreactivity to bFGF in CMM cells or in the local tumor vasculature. (C) Munksgaard 1996.  
 CC PATHOLOGY; DERMATOLOGY & VENEREAL DISEASES  
 STP KeyWords Plus (R): MELANOCYTIC LESIONS; HYBRIDIZATION; LOCALIZATION  
 RF 95-2001 001; BASIC FIBROBLAST GROWTH-FACTOR; VASCULAR SMOOTH-MUSCLE CELLS; EXPRESSION OF THE BASEMENT-MEMBRANE HEPARAN-SULFATE PROTEOGLYCAN (PERLECAN)

RE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) |
|----------------------------|---------------|--------------|-------------|--------------------------|
| ALOUSI S A                 | 1996          | 23           | 118         | J CUTAN PATHOL           |
| FLEMING M G                | 1992          | 14           | 496         | AM J DERMATOPATH         |
| GOSPODAROWICZ D            | 1990          | 114          | 15          | UCLA S MOL CELLULAR      |
| HALABAN R                  | 1991          | 10           | 129         | CANCER METAST REV        |
| KLAGSMAN M                 | 1991          |              | 229         | CELL                     |
| KORHONEN J                 | 1992          |              | 91          | ANGIOGENESIS KEY PRI     |
| REED J A                   | 1994          | 144          | 329         | AM J PATHOL              |
| SCHULZEOSTHOFF K           | 1990          | 137          | 85          | AM J PATHOL              |
| SCOTT G                    | 1991          | 96           | 318         | J INVEST DERMATOL        |
| VLODAVSKY I                | 1987          | 84           | 2292        | P NATL ACAD SCI USA      |
| YAYON A                    | 1990          | 9            | 191         | CANCER METAST REV        |

=>

L15 ANSWER 10 OF 21 DGENE COPYRIGHT 2003 THOMSON DERWENT on STN  
 AN AAQ10791 DNA DGENE  
 TI DNA encoding vascular endothelial cell growth factor - used for producing  
 the factor for angiogenesis and re-endothelialisation in wound healing  
 IN Tischer E R; Abrahamam; Fiddes J C; Mitchell R L  
 PA (CALD) CALIFORNIA BIOTECHNOLOGY INC.  
 PI WO 9102058 A 19910221 94p  
 AI WO 1990-US4227 19900727  
 PRAI US 1989-450883 19891214  
 US 1989-387545 19890727  
 DT Patent  
 LA English  
 OS 1991-073534 [10]  
 CR P-PSDB: AAR10911  
 DESC Bovine vascular endothelial cell growth factor 164.  
 PI WO 9102058 A 19910221 94p  
 AB. . . AAQ10796 for bVEGF120 obtained by alternative splicing this  
 sequence, i.e. bases 342-473 are spliced. The product can be used for  
**angiogenesis** and re-endothelialisation of inner vascular surfaces  
 in wound healing, e.g. treatment of full- thickness wounds such as dermal  
**ulcers, venous ulcers** and diabetic  
**ulcers**, burns, in surgery, in balloon angioplasty and for the in  
 vitro culturing of endothelial cells. Hybrid growth factors of PDGF. .  
 . VEGF can exhibit a mitogenic profile between each factor and can be  
 used for wound healing or as inhibitors of **angiogenesis** for  
 e.g. preventing the growth of tumours. VEGF analogues in which CYS  
 residues are substd. are more stable. See also. . .

(FILE 'HOME' ENTERED AT 13:11:50 ON 31 OCT 2003)

FILE 'ADISCTI, ADISINSIGHT, ADISNEWS, BIOSIS, BIOTECHNO, CANCERLIT, CAPLUS, CEN, DISSABS, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, EMBAL, EMBASE, ESBIODBASE, IFIPAT, IPA, JICST-EPLUS, KOSMET, LIFESCI, MEDICONF, MEDLINE, NAPRALERT, NLDB, NUTRACEUT, ...' ENTERED AT 13:12:06 ON 31 OCT 2003

```
L1      1602 S RECESSIVE DYSTROPHIC EPIDERMOLYSIS BULLOSA
L2      824 S L1 AND PD<2000
L3      0 S L2 AND (ANGIOGENESIS ANTIANGIOGENIC OR ANTIANGIOSTATIC)
L4      0 S L3 AND (BASIC AND FIBROBLAST )
L5      27 S L1 AND (ANGIO? OR ANGIOGENESIS OR ANGIOSTATIC OR ANTIANGIOGE
L6      13 DUP REM L5 (14 DUPLICATES REMOVED)
L7      1359 S VENOUS (W) ULCER
L8      85 S L7 AND (ANGIOGENESIS OR ANTIANGIOGENIC OR ANGIOSTATIC)
L9      10 S L8 AND PD<2000
L10     1 S L9 AND (FIBROBLAST)/AB
L11     2255 S VENOUS (P) ANGIOGENESIS
L12     435 S L11 AND PD<2000
L13     50 S L12 AND (ULCER OR ULCERS)
L14     34 DUP REM L13 (16 DUPLICATES REMOVED)
L15     21 S L14 AND (VENOUS (W) (ULCER OR ULCERS))
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(FILE 'HOME' ENTERED AT 13:11:50 ON 31 OCT 2003)

FILE 'ADISCTI, ADISINSIGHT, ADISNEWS, BIOSIS, BIOTECHNO, CANCERLIT, CAPLUS, CEN, DISSABS, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, EMBAL, EMBASE, ESBIODBASE, IFIPAT, IPA, JICST-EPLUS, KOSMET, LIFESCI, MEDICONF, MEDLINE, NAPRALERT, NLDB, NUTRACEUT, ...' ENTERED AT 13:12:06 ON 31 OCT 2003

```
L1      1602 S RECESSIVE DYSTROPHIC EPIDERMOLYSIS BULLOSA
L2      824 S L1 AND PD<2000
L3      0 S L2 AND (ANGIOGENESIS ANTIANGIOGENIC OR ANTIANGIOSTATIC)
L4      0 S L3 AND (BASIC AND FIBROBLAST )
L5      27 S L1 AND (ANGIO? OR ANGIOGENESIS OR ANGIOSTATIC OR ANTIANGIOGE
L6      13 DUP REM L5 (14 DUPLICATES REMOVED)
L7      1359 S VENOUS (W) ULCER
L8      85 S L7 AND (ANGIOGENESIS OR ANTIANGIOGENIC OR ANGIOSTATIC)
L9      10 S L8 AND PD<2000
L10     1 S L9 AND (FIBROBLAST)/AB
L11     2255 S VENOUS (P) ANGIOGENESIS
L12     435 S L11 AND PD<2000
L13     50 S L12 AND (ULCER OR ULCERS)
L14     34 DUP REM L13 (16 DUPLICATES REMOVED)
L15     21 S L14 AND (VENOUS (W) (ULCER OR ULCERS))
L16     1 S L7 AND (CURCUMIN OR CURCUMINOID OR DEMETHOXYCURCUMIN)
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L3 ANSWER 10 OF 27 USPATFULL on STN  
 AN 97:3837 USPATFULL  
 TI Methods and compositions for inhibition of angiogenesis  
 IN D'Amato, Robert, Lancaster, PA, United States  
 PA The Children's Medical Center Corporation, Boston, MA, United States  
 (U.S. corporation)  
 PI US 5593990 19970114 <--  
 AI US 1995-371987 19950113 (8)  
 RLI Continuation-in-part of Ser. No. US 1993-168817, filed on 15 Dec 1993  
 which is a continuation-in-part of Ser. No. US 1993-25046, filed on 1  
 Mar 1993, now abandoned  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Jordan, Kimberly  
 LREP Jones & Askew  
 CLMN Number of Claims: 15  
 ECL Exemplary Claim: 1  
 DRWN 7 Drawing Figure(s); 6 Drawing Page(s)  
 LN.CNT 895  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 PI US 5593990 19970114 <--  
 SUMM One example of a disease mediated by **angiogenesis** is ocular  
 neovascular disease. This disease is characterized by invasion of new  
 blood vessels into the structures of the eye. . . limited to,  
 epidemic keratoconjunctivitis, Vitamin A deficiency, contact lens  
 overwear, atopic keratitis, superior limbic keratitis, pterygium  
 keratitis sicca, sjogrens, acne **rosacea**, phlyectenulosis,  
 syphilis, Mycobacteria infections, lipid degeneration, chemical burns,  
 bacterial ulcers, fungal ulcers, Herpes simplex infections, Herpes  
 zoster infections, protozoan infections,. . .

L8 ANSWER 28 OF 32 USPATFULL on STN

PI US 5190918 19930302

<--

DETD "**Angiogenesis** activity" is defined herein as the ability to inhibit or enhance the formation of blood vessels or lymph vessels.

DETD **Angiogenesis** is the formation of blood and lymph vessels. The compounds of this invention are useful in the modulation of **angiogenesis**, particularly in enhancing wound healing, inhibiting or preventing tumor growth, diabetic retinopathy, and rheumatoid arthritis. Standard **angiogenesis** assays are well known in the art.

L8 ANSWER 17 OF 32 USPATFULL on STN

PI US 5639725 19970617

<--

SUMM As used herein, the term "**angiogenesis**" means the generation of new blood vessels into a tissue or organ. Under normal physiological conditions, humans or animals undergo **angiogenesis** only in very specific restricted situations. For example, **angiogenesis** is normally observed in wound healing, fetal and embryonal development and formation of the corpus luteum, endometrium and placenta. The term "endothelium" means a thin layer of flat epithelial cells that lines serous cavities, **lymph** vessels, and blood vessels. The term "endothelial inhibiting activity" means the capability of a molecule to inhibit **angiogenesis** in general and, for example, to inhibit the growth of bovine capillary endothelial cells in culture in the presence of. . .

L7 ANSWER 1 OF 3 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN DUPLICATE 1

AN 1998424010 EMBASE

TI Phacomatosis pigmentovascularis type I Ib associated with **Sturge-Weber syndrome** and pyogenic granuloma.

AU Hagiwara K.; Uezato H.; Nonaka S.

CS Dr. K. Hagiwara, Department of Dermatology, Research Ctr. of Comprehensive Med., University of the Ryukyus, 207 Uehara, Nishihara, Okinawa 903-0215, Japan

SO Journal of Dermatology, (1998) 25/11 (721-729).  
Refs: 26  
ISSN: 0385-2407 CODEN: JDMYAG

CY Japan

DT Journal; Article

FS 007 Pediatrics and Pediatric Surgery  
013 Dermatology and Venereology

LA English

SL English

TI Phacomatosis pigmentovascularis type I Ib associated with **Sturge-Weber syndrome** and pyogenic granuloma.

SO Journal of Dermatology, (1998) 25/11 (721-729).  
Refs: 26  
ISSN: 0385-2407 CODEN: JDMYAG

AB A case of phacomatosis pigmentovascularis (PPV) in a 6-year-old girl with **Sturge-Weber syndrome**, pyogenic granuloma, and other complications is described. It is relatively rare that a complete form of **Sturge-Weber syndrome** was associated with PPV. A review of the literature on PPV, focusing on total number of reported cases and etiological. . . skin, 6.85 +/- 4.9/mm2 (n=20). There was a significant difference between the two, indicating that MCs are closely associated with **angiogenesis** in pyogenic granuloma.

CT Medical Descriptors:  
\*phacomatosis: CN, congenital disorder  
\*phacomatosis: DI, diagnosis  
\***Sturge Weber syndrome**  
\*pyogenic granuloma  
disease association  
mast cell  
    **angiogenesis**  
skin hemangioma  
nevus flammeus  
capillary hemangioma  
skin manifestation  
human  
female  
case report  
child  
article  
\*tryptase: EC, endogenous compound

L7 ANSWER 2 OF 3 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN DUPLICATE 2

AN 96094511 EMBASE

DN 1996094511

TI Axial structures control laterality in the distribution pattern of endothelial cells.

AU Klessinger S.; Christ B.

CS Institute of Anatomy, University of Freiburg, PO Box 111, D-79001 Freiburg, Germany

SO Anatomy and Embryology, (1996) 193/4 (319-330).  
ISSN: 0340-2061 CODEN: ANEMDG

CY Germany

DT Journal; Article

FS 001 Anatomy, Anthropology, Embryology and Histology  
 021 Developmental Biology and Teratology  
 LA English  
 SL English  
 SO Anatomy and Embryology, (1996) 193/4 (319-330).  
 ISSN: 0340-2061 CODEN: ANEMDG  
 AB . . . substances. It is conceivable that our results can explain the  
 lateralization of illnesses of the vascular system, as the  
 Klippel-Trenaunay **syndrome** or the **Sturge-Weber**  
**syndrome**.  
 CT Medical Descriptors:  
     \***angiogenesis**  
     \*cell migration  
     \*embryo axis  
     \*endothelium cell  
     animal cell  
     article  
     embryo  
     histology  
     mesoderm  
     nonhuman  
     priority journal  
     quail  
  
 L7 ANSWER 3 OF 3 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.  
 on STN  
 AN 95062538 EMBASE  
 DN 1995062538  
 TI Expression of basement membrane and endothelial cell adhesion molecules in  
 vascular malformations of the brain: Preliminary observations and working  
 hypothesis.  
 AU Robinson Jr. J.R.; Awad I.A.; Zhou P.; Barna B.P.; Estes M.L.  
 CS Barrow Neurological Institute, 350 West Thomas Road, Phoenix, AZ  
 85013-4496, United States  
 SO Neurological Research, (1995) 17/1 (49-58).  
 ISSN: 0161-6412 CODEN: NRESNZ  
 CY United Kingdom  
 DT Journal; Article  
 FS 005 General Pathology and Pathological Anatomy  
 008 Neurology and Neurosurgery  
 LA English  
 SL English  
 SO Neurological Research, (1995) 17/1 (49-58).  
 ISSN: 0161-6412 CODEN: NRESNZ  
 AB . . . We have freeze-processed four specimens of arteriovenous  
 malformation (AVM), two cavernous malformations (CM), and resected cortex  
 from one case of **Sturge-Weber** disease (SWD) for  
 immunohistochemical studies. Probes of vascular maturity and cellular  
 adhesion were examined, including Factor 8 related antigen (F8RAG),. . .  
 CT Medical Descriptors:  
     \*brain arteriovenous malformation: CN, congenital disorder  
     \*brain arteriovenous malformation: ET, etiology  
     \*cavernous hemangioma: ET, etiology  
     \*cavernous hemangioma: CN, congenital disorder  
     \***sturge weber syndrome: CN, congenital disorder**  
     \***sturge weber syndrome: ET, etiology**  
     **angiogenesis**  
     antigen expression  
     article  
     basement membrane  
     cell adhesion  
     clinical article  
     controlled study  
     endothelium cell

human  
human tissue  
protein localization  
\*cell adhesion molecule: EC, endogenous compound  
blood clotting factor 8: EC, endogenous compound  
endothelial. . .

=>

L17 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 1991:604988 CAPLUS  
 DN 115:204988  
 TI Increase in .alpha.-actin and basic fibroblast growth factor in  
 angiofibromas of patients with tuberous sclerosis  
 AU Takanashi, Masanori; Nakayama, Juichiro; Inoue, Mitsuse; Urabe, Atsumichi;  
 Hori, Yoshiaki  
 CS Sch. Med., Kyushu Univ., Fukuoka, 812, Japan  
 SO Nippon Hifuka Gakkai Zasshi (1991), 101(6), 601-8  
 CODEN: NHKZAD; ISSN: 0021-499X  
 DT Journal  
 LA Japanese  
 CC 14-10 (Mammalian Pathological Biochemistry)  
 AB There was an increase of .alpha.-actin-pos. microvessels in the papilla  
 and the upper reticular dermis of 4 angiofibromas and a connective tissue  
 nevus in **tuberous sclerosis** patients compared to those  
 of normal skin. .alpha.-Actin in the microvessels localized mainly in  
 pericytes. Most of the basic fibroblast growth factor-pos. microvessels  
 corresponded to those contg. .alpha.-actin as detd. by double  
 immunostaining. Evidently, the increased basic fibroblast growth factor  
 plays a role in stimulating **angiogenesis** and/or maintaining  
 vessels in angiofibromas.  
 ST tuberous sclerosis alpha actin skin angiofibroma; basic fibroblast growth  
 factor actin angiofibroma  
 IT Skin, neoplasm  
 (angiofibroma, .alpha.-actin and basic fibroblast growth factor of, in  
 tuberous sclerosis of humans)  
 IT Neoplasm, composition  
 (nevus, of skin, .alpha.-actin and basic fibroblast growth factor of,  
 in tuberous sclerosis of humans)  
 IT Fibroma  
 (angio-, .alpha.-actin and basic fibroblast growth factor of, of skin,  
 in tuberous sclerosis of humans)  
 IT Skin, neoplasm  
 (nevus, .alpha.-actin and basic fibroblast growth factor of, in  
 tuberous sclerosis of humans)  
 IT Brain, disease or disorder  
 (tuberous sclerosis, .alpha.-actin and basic fibroblast growth factor  
 of skin angiofibroma in, of humans)  
 IT Actins  
 RL: BIOL (Biological study)  
 (.alpha.-, of angiofibroma of skin, in tuberous sclerosis of humans,  
 basic fibroblast growth factor in relation to)  
 IT 106096-93-9, Basic fibroblast growth factor  
 RL: BIOL (Biological study)  
 (of angiofibroma of skin, in tuberous sclerosis of humans,  
 .alpha.-actin in relation to)

=>



(FILE 'HOME' ENTERED AT 06:18:23 ON 31 OCT 2003)

FILE 'ADISCTI, ADISINSIGHT, ADISNEWS, BIOSIS, CANCERLIT, CAPLUS, CEN, DISSABS, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, EMBAL, EMBASE, ESBIODBASE, IFIPAT, IPA, JICST-EPLUS, KOSMET, LIFESCI, MEDICONF, MEDLINE, NAPRALERT, NLDB, NUTRACEUT, PASCAL, ...' ENTERED AT 06:18:35 ON 31 OCT 2003

L1 15659 S (STURGE AND WEBER AND SYNDROME)  
L2 12373 S L1 AND ANGIOGENESIS  
L3 5 S L2 AND PD<1999  
L4 3 DUP REM L3 (2 DUPLICATES REMOVED)  
L5 12373 S L1 (P) ANGIOGENESIS  
L6 5 S L5 AND PD<1999  
L7 3 DUP REM L6 (2 DUPLICATES REMOVED)  
L8 42595 S (BASIC AND FIBROBLAST AND GROWTH AND FACTOR)/AB  
L9 4 S L8 AND L1  
L10 0 S L9 AND PD<2000  
L11 459 S DEMETHOXYCURCUMIN  
L12 183 S L11 AND PD<2000  
L13 2 S L12 AND ANGIOGENESIS  
L14 1 DUP REM L13 (1 DUPLICATE REMOVED)  
L15 9371 S (TUBEROUS AND SCLEROSIS)/AB  
L16 3461 S L15 AND PD<2000  
L17 1 S L16 AND ANGIOGENESIS  
L18 4 S L15 AND L11  
L19 3 DUP REM L18 (1 DUPLICATE REMOVED)  
L20 0 S L19 AND PD<2000  
L21 75667 S (TUBEROUS AND SCLEROSIS)  
L22 6 S L21 AND L11  
L23 0 S L22 AND PD<2000  
L24 23 S CURCUMINOID AND ANGIOGENESIS  
L25 0 S L24 AND PD<2000  
L26 6 S L8 AND L11  
L27 4 DUP REM L26 (2 DUPLICATES REMOVED)  
L28 82138 S (BASIC AND FIBROBLAST AND GROWTH AND FACTOR)  
L29 10 S L28 AND L11  
L30 6 DUP REM L29 (4 DUPLICATES REMOVED)

(FILE 'HOME' ENTERED AT 09:40:38 ON 31 OCT 2003)

FILE 'ADISCTI, ADISINSIGHT, ADISNEWS, BIOSIS, BIOTECHNO, CANCERLIT, CAPLUS, CEN, DISSABS, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, EMBAL, EMBASE, ESBIODBASE, IFIPAT, IPA, JICST-EPLUS, KOSMET, LIFESCI, MEDICONF, MEDLINE, NAPRALERT, NLDB, NUTRACEUT, ..' ENTERED AT 09:40:57 ON 31 OCT 2003

L1 13191 S (DEMETHOXYCURCUMIN OR CURCUMINOID OR CURCUMIN)  
L2 73 S L1 AND ANTIANGIOGENIC  
L3 31 DUP REM L2 (42 DUPLICATES REMOVED)  
L4 2 S L3 AND PD<1999  
L5 70870 S BASIC (W) FIBROBLAST (W) GROWTH (W) FACTOR  
L6 32271 S L5 AND PD<2000  
L7 15239 DUP REM L6 (17032 DUPLICATES REMOVED)  
L8 2 S L7 AND L1  
L9 0 S L7 AND DEMETHOXYCURCUMIN  
L10 2 S (ANGIOSTATIC) AND DEMETHOXYCURCUMIN  
L11 1 DUP REM L10 (1 DUPLICATE REMOVED)  
L12 16 S (ANGIOGENIC) AND DEMETHOXYCURCUMIN  
L13 7 DUP REM L12 (9 DUPLICATES REMOVED)  
L14 0 S L13 AND PD<2000  
L15 9648 S HEMANGIOENDOTHELIOMA  
L16 3515 S L15 AND PD<2000  
L17 123 S L15 AND L5  
L18 77 DUP REM L17 (46 DUPLICATES REMOVED)  
L19 13 S L18 AND L16  
L20 12 S L19 AND ANGIOGENESIS  
L21 113416 S MALIGNANT (W) MELANOMA  
L22 2040 S L21 AND (ANGIOGENESIS OR ANTIANGIOGENIC OR ANGIOSTATIC)  
L23 1422 DUP REM L22 (618 DUPLICATES REMOVED)  
L24 274 S L23 AND PD<2000

(FILE 'HOME' ENTERED AT 11:41:43 ON 31 OCT 2003)

FILE 'ADISCTI, ADISINSIGHT, ADISNEWS, BIOSIS, BIOTECHNO, CANCERLIT, CAPLUS, CEN, DISSABS, DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, EMBAL, EMBASE, ESBIODASE, IFIPAT, IPA, JICST-EPLUS, KOSMET, LIFESCI, MEDICONF, MEDLINE, NAPRALERT, NLDB, NUTRACEUT, ...' ENTERED AT 11:42:06 ON 31 OCT 2003

L1 808 S KAPOSI AND SARCOMA  
L2 436 S L1 AND (ANGIOGENESIS OR ANTIANGIOGENIC OR ANGIOSTATIC)  
L3 5 S L2 AND PD<2000  
L4 63078 S KAPOSI AND SARCOMA  
L5 436 S L2 AND (ANGIOGENESIS OR ANTIANGIOGENIC OR ANGIOSTATIC)  
L6 5 S L5 AND PD<2000  
L7 0 S L6 NOT L3  
L8 27592 S (KAPOSI AND SARCOMA)/AB  
L9 49 S (KARPOSI AND SARCOMA)/AB  
L10 27626 S L8 OR L9  
L11 10674 S L10 AND PD<2000  
L12 5053 DUP REM L11 (5621 DUPLICATES REMOVED)  
L13 436 S L2 AND (ANGIOGENESIS OR ANTIANGIOGENIC OR ANGIOSTATIC)  
L14 187 S L12 AND (ANGIOGENESIS OR ANTIANGIOGENIC OR ANGIOSTATIC)  
L15 148 S L14 AND (ANGIOGENESIS OR ANTIANGIOGENIC OR ANGIOSTATIC)/AB  
L16 148 S L15 AND (SARCOMA)/AB  
L17 148 S L16 AND PD<2000  
L18 35 S L17 AND (FIBROBLAST)/AB  
L19 25 S L18 AND BASIC/AB  
L20 0 S L19 AND (CURCUMIN OR CURCUMINOID OR DEMETHOXYCURCUMIN)/AB  
L21 0 S L19 AND (CURCUMIN OR CURCUMINOID OR DEMETHOXYCURCUMIN)

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